

CLAIMS

A copy of all pending claims and a status of each claim are provided below.

1. (Previously Presented) A method for establishing a Systems Network Architecture (SNA) connection between a source SNA node and a target SNA node through a packet switching network using Data Link Switching (DLSw) access services, said packet switching network comprising a plurality of DLSw access nodes, said DLSw access nodes comprising one or a plurality of Data Link Switching (DLSw) access services including directory services that locate resources across the packet switching network using a spanning tree, connection services that establish connections between DLSw access nodes, and protocol services that are capable of at least one of understanding and interpreting Systems network Architecture (SNA) protocol, said method comprising the steps of:

at a source DLSw access node, receiving from a source SNA node a first SNA request message having an address identifying the target SNA node for requesting the establishment of a SNA connection with the target SNA node;

at said source DLSw access node, locating a target DLSw access node providing access to the target SNA node, sending an undirected query over the spanning tree;

at target DLSw access node providing access to the target SNA node, in response to the undirected query, sending to the source DLSw access node a reply message comprising addressing information of the target DLSw access node providing access to the target SNA node;

establishing a reserved or non reserved connection within the packet switching network between the source DLSw access node and the target DLSw access node;

at the target DLSw access node, sending to the target SNA node a second SNA request message for requesting the establishment of a SNA connection; and

establishing a SNA connection between the source SNA node and the target SNA node.

2. (Original) The method according to claim 1 wherein the step of establishing a SNA connection between the source SNA node and the target SNA node, further comprises the steps of:

at the target DLSw access node, receiving from the target SNA node and forwarding to the source DLSw access node a response to the second SNA request message indicating that the SNA connection between the source SNA node and the target SNA node is established; and

at the source DLSw access node, receiving from the target DLSw access node the response to the second SNA request message and sending to the source SNA node a response to the first SNA request message indicating that the SNA connection between the source SNA node and the target SNA node is established.

3. (Original) The method according to claim 2 comprising the further step of:
in the source DLSw access node, storing the addressing information of the target DLSw access node providing access to the target SNA node.

4. (Original) The method according to claim 3 wherein the step, at said source DLSw access node, of locating a target DLSw access node providing access to the target SNA node comprises the further steps of:

determining whether the addressing information of the target DLSw access node providing access to the target SNA node has been previously restored;

retrieving the addressing information of the target DLSw access node providing access to the target SNA node when said addressing information has been previously stored; and

sending by means of said retrieved addressing information a point to point directed query to the target DLSw access node providing access to the target SNA node.

5. (Original) The method according to claim 4 wherein said addressing information of the target DLSw access node providing access to the target SNA node comprises addressing information of the target DLSw access services within said target DLSw access node.

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6. (Original) The method according to claim 5 wherein said undirected query comprises addressing information, in particular Medium Access Control/Service Access Point (MAC/SAP) address, of the target SNA node.

7. (Original) The method according to claim 6 wherein the packet switching network is a Networking Broadband Services (NBBS) network.

8. (Original) A computer program product being operated on a processor in network access nodes of a high speed network, said access nodes providing Data link Switching (DLSw) access services in said high speed network, said computer program product comprising a usable medium for storing:

at a source DLSw access node, a program code module for:

receiving from a Source SNA node a first SNA request message for requesting the establishment of a SNA connection with a target SNA node;

upon reception of a first SNA request message, locating a target DLSw access node providing access to the target SNA node; and

using the access services for sending an undirected query over the spanning tree;

at target DLSw access node providing access to the target SNA node, a program code module for:

in response to the undirected query, sending to the source DLSw access node a reply message comprising addressing information of the target DLSw access node providing access to the target SNA node;

using the access service and the addressing information for establishing a reserved or non reserved connection within the packet switching network between the source DLSw access node and the target DLSw access node; and

using the access services for sending to the target SNA node a second SNA request message for requesting the establishment of a SNA connection and for establishing a SNA connection between the source SNA node and the target SNA node.

9. (Previously Presented) A method for establishing a Systems Network Architecture (SNA) connection between a source SNA node and a target SNA node through a packet switching network using Data Link Switching (DLSw) access services, comprising the steps of:

- receiving at a source DLSw access node a first SNA request message having an address identifying the target SNA node, the SNA request message requesting an establishment of a SNA connection to a target SNA node;

- sending an undirected query from said source DLSw access node over a spanning tree to locate a target DLSw access node, the target DLSw providing access to the target SNA node;

- sending to the source DLSw access node a reply message comprising addressing information of the target DLSw access node in response to the undirected query;

- storing addressing information contained in the reply message within in a local directory database for future use;

- establishing a reserved or non-reserved connection within the packet switching network between the source DLSw access node and the target DLSw access node;

- sending to the target SNA node a second SNA request message that requests the establishment of a SNA connection; and

- establishing a SNA connection between the source SNA node and the target SNA node.

10. (Previously Presented) The method of claim 9, wherein the storing addressing information contained in the reply messages comprises removing information in the local database if a negative reply is received.

11. (Previously Presented) The method of claim 1, wherein the address identifying the target SNA node comprises at least Medium Access Control and Service Access Point information.

12. (Previously Presented) The method of claim 11, wherein sending the undirected query over the spanning tree comprises performing an undirected directory search over the

spanning tree with the Medium Access Control and Service Access Point information as a search parameter.

13. (Previously Presented) The method of claim 9, wherein the address identifying the target SNA node comprises at least Medium Access Control and Service Access Point information.

14. (Previously Presented) The method of claim 13, wherein sending the undirected query from said source DLSw access node over the spanning tree comprises performing an undirected directory search over the spanning tree with the Medium Access Control and Service Access Point information as a search parameter.